

11/20/2006

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

999 18TH STREET- SUITE 200

DENVER, CO 80202-2466

Phone 800-227-8917

<http://www.epa.gov/region08>

Ref: 8ENF-RC

November 20, 2006

Mr. Jon Nickel
ASARCO East Helena Plant
100 Smelter Road
P.O. Box 1230
East Helena, MT 59635

RE: ASARCO East Helena Smelter, Transmittal of EPA Inspection
Report for Corrective Action Assessment Inspection, September 8, 2006

Dear Mr. Nickel:

Enclosed please find a copy of the EPA inspection report for the corrective action assessment inspection conducted on September 8, 2006. Please let me know if you should find any inaccuracies in either the text or photographic descriptions. Your continued cooperation with EPA is very much appreciated. If you have questions on this letter or any related matter, please contact me directly at (303) 312-6503.

Sincerely,

Linda Jacobson
EPA Project Manager

Enclosure

**U.S. EPA REGION VIII
TECHNICAL ENFORCEMENT PROGRAM
RCRA COMPLIANCE INSPECTION REPORT**

Facility: ASARCO East Helena Plant
100 Smelter Road
East Helena, MT

Facility Contact: Jon Nickel
Environmental Manager

Telephone Number: (406) 227-4529

EPA I.D. No.: MTD006230346

Notification Status: LQG

Inspection Type: Corrective Action Assessment Inspection

Date: September 8, 2006

Time In: 1:55 p.m.

Time Out: 4:40 p.m.

Weather: Cool

**EPA
Representative:** Linda Jacobson
EPA Inspector

Background:

This inspection was a prearranged corrective action assessment inspection. Ms. Jacobson had conducted an oversight inspection of the Montana Department of Environmental Quality (MDEQ) inspector on August 31, 2006. Attached photographs were taken on both dates to document the progress of the structure demolition, storage conditions, and corrective action activities.

Ms. Jacobson, EPA inspector, arrived at 1:55 pm and was met by Mr. Nickel. Pursuant to a 1998 federal RCRA Consent Decree ("CD"), EPA is the lead agency for implementation of corrective action activities at the ASARCO East Helena smelter facility.

On September 7, 2006, Mr. Nickel had informed Ms. Jacobson via telephone that Envirocon, the demolition consultant had damaged a 1.1 gallon PCB-containing capacitor. Mr. Nickel had reported this to Francis Tran, EPA PCB permit writer in Denver, who told him to have Envirocon follow-up.

Upcoming corrective action activities scheduled for the remainder of this year were discussed. Two of the Permeable Reactive Barrier (PRB) wells have been installed. The water quality sampling results from these wells should be back next week. The results will determine if it is necessary to install additional wells at this location to delineate the plume width.

During the week of September 18th, 2006, ASARCO plans to collect samples from the EH-100 series of wells located north of Highway 12 as a follow-up to the detections of arsenic found in the May 2006 biannual sampling event. Of particular interest is the detection of arsenic in wells at the leading edge of the plume. MDEQ will be collecting splits from a subset of these wells and is coordinating the sample collection effort with Greg Bryce, ASARCO's contractor. ASARCO's results from this sampling event should be available the week of October 9th or 16th.

Ms. Jacobson and Mr. Nickel discussed what options might be available if the upcoming groundwater samples for the wells at the leading edge of the plume have increasing arsenic detections. There is the possibility of installation of a PRB wall or remedial option at the leading edge or designation of the area (the Lamping fields which are an ASARCO-owned property) as a groundwater control use area.

The next round of residential well sampling will occur next week. Four homes along Gale Street are sampled every other month.

The work plan for the installation of a slurry wall and cap in the former acid plants sediment drying area has been provided to EPA and MDEQ. It is now up to Ms. Jacobson to develop a fact sheet and make the document available for a 30-day public comment period at three locations in Helena and East Helena. To construct the cap for this area, the facility may use soils from the CAMU Phase 2 area. Shaw Environmental has been hired to do the design and installation of the slurry wall. They are currently designing the slurry mix.

There was also a discussion of the development of a work plan for installation of both temporary and permanent caps in the footprints of the demolished structures to prevent creation of preferential pathways for groundwater and precipitation events. ASARCO has agreed to collect samples from exposed soils for metals analyses. At the Sinter Plant, the concrete will be swept and vacuumed prior to placement of a cap. The Acid Plant demolition should be completed this year also and temporary capping installed here as well.

The pump-and-treat study being conducted by CDM should continue through September and October 2006. The aquifer pumping test has been completed, and they have conducted some of the treatment feasibility testing using the existing water treatment system or modifying it to accommodate the highly contaminated groundwater. The treatment feasibility results are not what they had anticipated for this high-pH, high-arsenic-contaminated groundwater found in the Dross Plant area.

Ms. Jacobson and Mr. Nickel discussed the outstanding CERCLA Process Pond ROD which still requires submittal of monthly reports. Under this ROD, ASARCO had removed some of the sediments of Lower Lake to a prescribed depth. This ROD also established the following Lower Lake water limits which ASARCO is still unable to achieve:

1989 ROD Limits for Lower Lake Water

As	0.02 mg/l
Cd	0.01 mg/l
Pb	0.05 mg/l
Cu	0.004-0.008 mg/l
Zn	0.11 mg/l

The existing wastewater treatment plant effluent, regulated by their MPDES permit at the end-of-the-pipe, is cleaner than the Lower Lake water. The facility also has a discharge monitoring point in their permit in a well in the berm where they monitor for BOD and nitrogen (1.5 mg/l). The ROD had required attainment of these limits based on in-place treatment of the remaining Lower Lake sediments by bubbling iron through them to precipitate out metals. The limits have never been achieved. Addressing Lower Lake is part of the corrective action process and an area of overlap between the CERCLA ROD and the RCRA CD. Also, restoration of a portion of Lower Lake as a riparian habitat is a SEP requirement in the 1998 RCRA federal CD.

Ms. Jacobson also reviewed the records for the Groundwater Source Control Interim Measures Design Analysis, Plans and Specifications Monthly Operational and Maintenance Inspections from July 2005 through September 2006. The areas inspected include the Speiss Handling Area and the Former Acid Plant Sediment Drying Area. No deficiencies were noted in these inspection records.

An annual public meeting is held in East Helena to update interested parties on the status of current and planned corrective action activities. This meeting is traditionally held in October. Ms. Jacobson committed to check with state and EPA personnel for their availability and interest in participating and notify Mr. Nickel of a proposed time frame for the meeting.

Physical Site Inspection

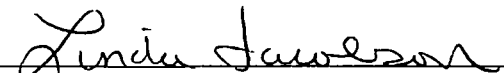
A walkthrough was conducted of a portion of the plant to allow photographic documentation of some of the building demolition activities. Photos were taken at the Sinter Plant including the Larry Pit, exposed soils, foundations, and the drain sump. Mr. Nickel indicated that the exposed soils will be sampled for the full suite of metals and covered with a temporary cap. The sump drain, the elevator, and other low lying spots will be filled in with slag.

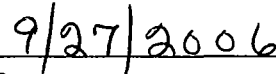
Ms. Jacobson was also shown the damaged PCB-containing capacitor. The capacitor had been in use at the Acid Plant. After being damaged, it was placed in the lay down area; this area had now been painted as a red boxed area for PCB grid sampling. The capacitor had now been moved to a safer location near the blast furnace bag house; it was wrapped in plastic and red danger tape.

Ms. Jacobson photographed the exterior of the Hot Cottrell Building from which the galbestos insulation was being removed pursuant to state asbestos regulations. Mr. Nickel drove them to the location of the proposed Phase 2 CAMU cell. Ms. Jacobson also photographed this area.

A photo log and photographs are attached to this report as Attachment 1.

Prepared By:


Linda Jacobson, EPA Inspector


Date

ATTACHMENT 1

PHOTO LOG AND PHOTOS

ASARCO EAST HELENA SMELTER

AUGUST 31 AND SEPTEMBER 7, 2006

ATTACHMENT 1

PHOTO LOG

PHOTO NUMBER	DESCRIPTION	DATE
Roll 1 1	Dross Plant Demolition	August 31, 2006
2	Dross Plant with Speiss Pit in Foreground	August 31, 2006
3	Reverb Furnace	August 31, 2006
4	Dross Plant Baghouse Flue	August 31, 2006
5	Inside of Dross Baghouse Flue	August 31, 2006
6	Dross Plant Demolition	August 31, 2006
7	Blast Furnace Flue Behind No. 1 Furnace, Stop Demo for 2006	August 31, 2006
8	Structures to Be Demolished	August 31, 2006
9	Outside of Bailey Building & Demolition Snippers	August 31, 2006
10	Hot Cottrell & Mist Precip. Bldgs.	August 31, 2006
11	Hot Cottrell Building & Piping	August 31, 2006
12	Hot Cottrell Building	August 31, 2006
13	Demolition Scrap	August 31, 2006
14	Hot Cottrell Building	August 31, 2006
15	Demolition Equipment	August 31, 2006
16	Demolition Proceeding	August 31, 2006
17	Waste Inside Bailey Building	August 31, 2006
18	Waste Storage Inside Bailey Bldg.	August 31, 2006
19	Waste Storage Inside Bailey Bldg.	August 31, 2006
20	Waste Storage Inside Bailey Bldg. Note: waste height is too high	August 31, 2006
21	Lay Down Area for Recyclable Materials	August 31, 2006
22	Demolition Scrap Material	August 31, 2006
23	Former Sinter Plant Foundation	August 31, 2006
24	Former Sinter Plant Foundation	August 31, 2006
25	Former Sinter Plant Foundation	August 31, 2006
26	Former Sinter Plant Foundation	August 31, 2006
27	Depressed Areas at Sinter Plant	August 31, 2006
Roll 2 1	Larry Pit at Former Sinter Plant	Sept. 8, 2006
2	Exposed Soils at Former Sinter Plant	Sept. 8, 2006
3	Larry Pit at Former Sinter Plant	Sept. 8, 2006
4	Foundation of Former Sinter Plant	Sept. 8, 2006
5	Depressed Area at Sinter Plant	Sept. 8, 2006
6	Depressed Area at Sinter Plant	Sept. 8, 2006
7	Exposed Areas at Sinter Plant	Sept. 8, 2006
8	Condition of Sinter Plant Footprint	Sept. 8, 2006
9	Sinter Plant Foundation	Sept. 8, 2006
10	Sinter Plant Foundation	Sept. 8, 2006

PHOTO NUMBER	DESCRIPTION	DATE
11	Portion of Lay Down Area Needing PCB Sampling, Red-Boxed	Sept. 8, 2006
12	Demolition Work Proceeding	Sept. 8, 2006
13	Damaged Capacitor	Sept. 8, 2006
14	Hot Cottrell Building	Sept. 8, 2006
15	Location of Capacitor Prior to Demolition	Sept. 8, 2006
16	Structures to Be Demolished in Next Phase	Sept. 8, 2006
17	Exposed Soils Between Hot Cottrell and Mist Precip. Building	Sept. 8, 2006
18	Former Sinter Plant Foundation	Sept. 8, 2006
19	Location of CAMU Cell 2	Sept. 8, 2006
20	Location of CAMU Cell 2	Sept. 8, 2006
21	Location of CAMU Cell 2	Sept. 8, 2006
22	ASARCO Storage Buildings	Sept. 8, 2006
23	New PRB Well to West	Sept. 8, 2006
24	Existing & New PRB Wells	Sept. 8, 2006
25	Existing & New PRB Wells	Sept. 8, 2006
26	Pilot-Scale PRB Wall Location	Sept. 8, 2006
27	ASARCO Facility	Sept. 8, 2006

Color Photo(s)

The following pages
contain color that does
not appear in the
scanned images.

To view the actual images, contact
the Region VIII Records Center at
(303) 312-6473.



Roll 1, Photo 1; Facility: ASARCO East Helena Smelter; Subject: Dross Plant Demolition; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 2; Facility: ASARCO East Helena Smelter; Subject: Dross Plant with Speiss Pit in Foreground; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 3; Facility: ASARCO East Helena Smelter; Subject: Reverb Furnace;
Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 4; Facility: ASARCO East Helena Smelter; Subject: Dross Plant Baghouse Flue;
Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 5; Facility: ASARCO East Helena Smelter; Subject: Inside of Dross Baghouse Flue; Photographer: Linda Jacobson; Date: August 31, 2006



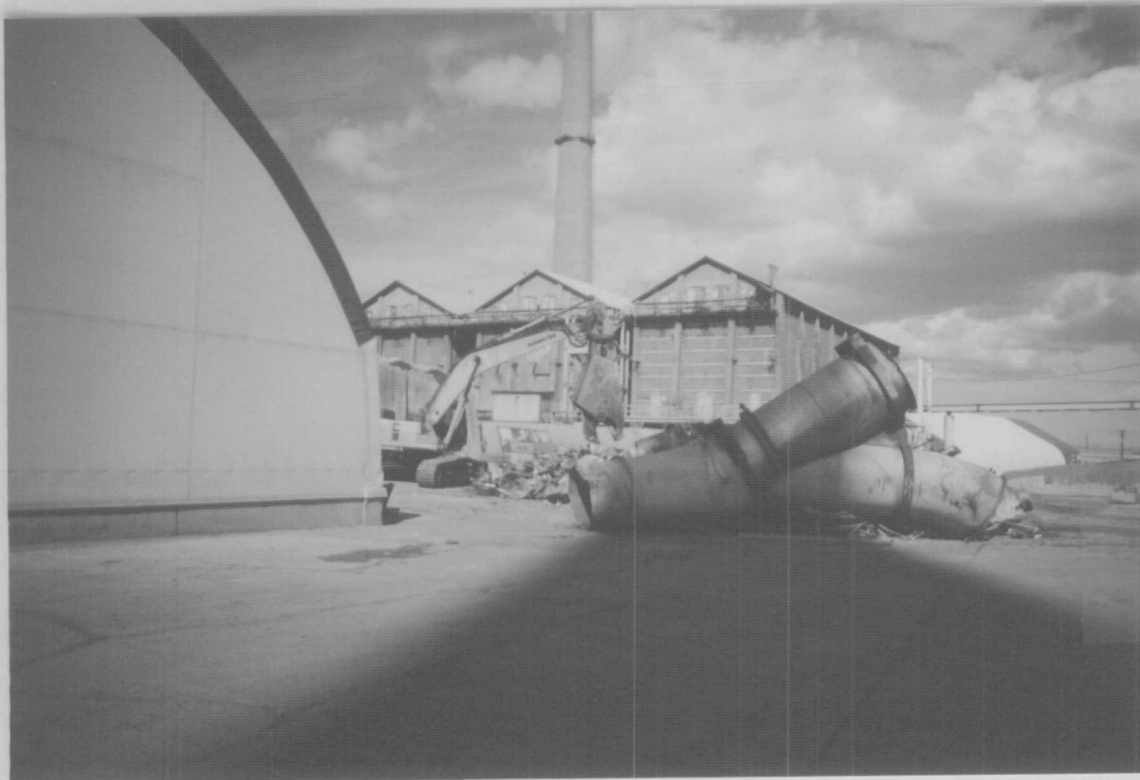
Roll 1, Photo 6; Facility: ASARCO East Helena Smelter; Subject: Dross Plant Demolition; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 7; Facility: ASARCO East Helena Smelter; Subject: Blast Furnace Flue Behind No. 1 Furnace, Stop Demo for 2006; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 8; Facility: ASARCO East Helena Smelter; Subject: Structures to Be Demolished; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 9; Facility: ASARCO East Helena Smelter; Subject: Outside of Bailey Building and Demolition Snippers; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 10; Facility: ASARCO East Helena Smelter; Subject: Hot Cottrell & Mist Precip. Buildings; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 11; Facility: ASARCO East Helena Smelter; Subject: Hot Cottrell Building & Piping; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 12; Facility: ASARCO East Helena Smelter; Subject: Hot Cottrell Building; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 13; Facility: ASARCO East Helena Smelter; Subject: Demolition Scrap;
Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 14; Facility: ASARCO East Helena Smelter; Subject: Hot Cottrell Building;
Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 15; Facility: ASARCO East Helena Smelter; Subject: Demolition Equipment;
Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 16; Facility: ASARCO East Helena Smelter; Subject: Demolition Proceeding;
Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 17; Facility: ASARCO East Helena Smelter; Subject: Waste Inside Bailey Building; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 18: Facility: ASARCO East Helena Smelter; Subject: Waste Storage Inside Bailey Building; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 19; Facility: ASARCO East Helena Smelter; Subject: Waste Storage Inside Bailey Building; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 20; Facility: ASARCO East Helena Smelter; Subject: Waste Storage Inside Bailey Building (Note: waste height is too high); Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 21; Facility: ASARCO East Helena Smelter; Subject: Lay Down Area for Recyclable Materials; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 22; Facility: ASARCO East Helena Smelter; Subject: Demolition Scrap Material; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 23; Facility: ASARCO East Helena Smelter; Subject: Former Sinter Plant Foundation; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 24; Facility: ASARCO East Helena Smelter; Subject: Former Sinter Plant Foundation; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 25; Facility: ASARCO East Helena Smelter; Subject: Former Sinter Plant Foundation; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 26; Facility: ASARCO East Helena Smelter; Subject: Former Sinter Plant Foundation; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 1, Photo 27; Facility: ASARCO East Helena Smelter; Subject: Depressed Areas at Sinter Plant; Photographer: Linda Jacobson; Date: August 31, 2006



Roll 2, Photo 1; Facility: ASARCO East Helena Smelter; Subject: Larry Pit at Former Sinter Plant; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 2; Facility: ASARCO East Helena Smelter; Subject: Exposed Soils at Former Sinter Plant; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 3; Facility: ASARCO East Helena Smelter; Subject: Larry Pit at Former Sinter Plant; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 4; Facility: ASARCO East Helena Smelter; Subject: Foundation of Former Sinter Plant; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 5; Facility: ASARCO East Helena Smelter; Subject: Depressed Area at Sinter Plant; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 6; Facility: ASARCO East Helena Smelter; Subject: Depressed Area at Sinter Plant; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 7; Facility: ASARCO East Helena Smelter; Subject: Exposed Areas of Soil at Sinter Plant; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 8; Facility: ASARCO East Helena Smelter; Subject: Condition of Sinter Plant Footprint; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 9; Facility: ASARCO East Helena Smelter; Subject: Former Sinter Plant Foundation; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 10; Facility: ASARCO East Helena Smelter; Subject: Foundation of Former Sinter Plant; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 11; Facility: ASARCO East Helena Smelter; Subject: Portion of Lay Down Area
Needing PCB Grid Sampling, Red-Boxed; Photographer: Linda Jacobson;
Date: September 8, 2006



Roll 2, Photo 12; Facility: ASARCO East Helena Smelter; Subject: Demolition Work
Proceeding; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 13; Facility: ASARCO East Helena Smelter; Subject: Damaged Capacitor;
Photographer: Linda Jacobson; Subject: September 8, 2006



Roll 2, Photo 14; Facility: ASARCO East Helena Smelter; Subject: Hot Cottrell Building;
Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 15; Facility: ASARCO East Helena Smelter; Subject: Location of Capacitor Prior to Demolition; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 16; Facility: ASARCO East Helena Smelter; Subject: Structures to Be Demolished in Next Phase; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 17; Facility: ASARCO East Helena Smelter; Subject: Exposed Soils Between Hot Cottrell and Mist Precip. Building; Photographer: Linda Jacobson
Date: September 8, 2006



Roll 2, Photo 18; Facility: ASARCO East Helena Smelter; Subject: Former Sinter Plant Foundation; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 19; Facility: ASARCO East Helena Smelter; Subject: Location of CAMU Cell 2;
Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 20; Facility: ASARCO East Helena Smelter; Subject: Location of CAMU Cell 2;
Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 21; Facility: ASARCO East Helena Smelter; Subject: Location of CAMU Cell 2; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 22; Facility: ASARCO East Helena Smelter; Subject: ASARCO Storage Buildings; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 23; Facility: ASARCO East Helena Smelter; Subject: New PRB Well to West; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 24; Facility: ASARCO East Helena Smelter; Subject: Existing and New PRB Wells; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 25; Facility: ASARCO East Helena Smelter; Subject: Existing and New PRB Wells; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 26; Facility: ASARCO East Helena Smelter; Subject: Pilot-Scale PRB Wall Location; Photographer: Linda Jacobson; Date: September 8, 2006



Roll 2, Photo 27; Facility: ASARCO East Helena Smelter; Subject: ASARCO Facility;
Photographer: Linda Jacobson; Date: September 8, 2006